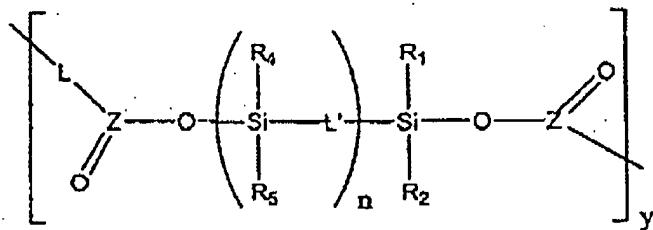


LISTING OF CLAIMS

1. (Currently Amended) A process for the preparation of poly(silyl ester)s comprising a structural unit of the formula (I)



(I)

wherein each R₄ and R₅ may be is hydroxyl or ~~may be is~~ independently selected from hydrogen, alkyl, cycloalkyl, aryl, alkoxy, aryloxy, -L'-SiR₁R₂-, -L'-SiR₄R₅R₁₀, -L'-(SiR₄R₅L') n-SiR₁R₂-, alkenyl, alkynyl, aralkyl or and aralkyloxy radicals optionally substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, aralkyl, aralkyloxy, hydroxyl, aryl, aryloxy, halogen, amino and amino alkyl radicals, or each R₄ and/or R₅ may is independently be an -O-Z(O)-L- group terminating with -SiR₁R₂R₃ and/or -O-Z(O)-R₇, where R₁₀ is defined as is R₇ below, and wherein when R₄ or R₅ is selected as -L'-(SiR₄R₅L') n-SiR₁R₂-, the R₄ and R₅ groups attached to the silicon radical in the selected group are not themselves -L'-(SiR₄R₅L') n-SiR₁R₂-.

wherein each R₁ and R₂ may is independently selected from ~~represent~~ hydrogen, hydroxyl, alkyl, cycloalkyl, alkenyl, alkynyl, alkoxy, -L'-SiR₄R₅R₁₀, aryl, aryloxy, aralkyl or and aralkyloxy radical optionally substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, aralkyl, aralkyloxy, aryl, aryloxy, halogen, hydroxyl, amino and amino alkyl radicals, or each R₁ and/or R₂ may is independently [[be]] an -O-Z(O)-L- group terminating with -SiR₁R₂R₃ and/or -O-Z(O)-R₇, where R₁₀ is defined as is R₇ below,

wherein L represents a hydrocarbyl or substituted hydrocarbyl group, wherein said substituted hydrocarbyl is substituted by one or more substituents independently selected from the group consisting of alkyl, cycloalkyl, carboxyl, substituted carboxyl, alkoxy, aralkyl, aralkyloxyl, aryl, aryloxyl, hydroxyl, halogen, amino radical, and amino alkyl radicals radical, or and a polymer with pendant acid groups,

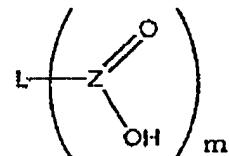
L' represents O, S, NR₆, or L-(NR₆-L)_p (where p = 1 to 10), where R₆ is defined as is R₇ below, or L.

each n independently represents a number of -Si(R₄)(R₅) - L' - groups from 0 to 1000,

and y represents a number of silyl-ester-repeat-units from 2 to 100000,

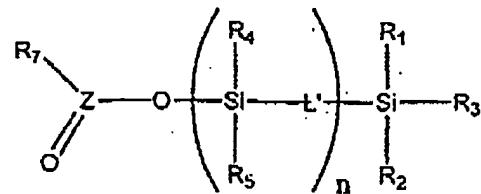
which wherein the process comprises the step of reacting[();])

a polyacid of formula (II)



(II)

wherein Z(O)OH represents the acid moiety attached to L, m is an integer from 2 to 100000, and L is as defined above, with a polyacyloxysilyl derivative of formula (III)



(III)

wherein R₁, R₂, R₄, R₅, L' and n are as defined above, except R₁, R₂, R₄ and R₅ in (III) are -O-Z(O)-R₈, where R₈ is defined as in R₇ below, when the equivalent group in (I) is -O-Z(O)-L-, and R₇ is a hydrogen atom, an aralkyl, aryl, alkenyl, alkynyl, or alkyl group optionally substituted with one or more substituents selected from the equivalent substituents as defined for R₁, R₂, R₄ and R₅ above,

and R₃ is the group -O-Z-(O)-R₉, where R₉ is defined as is R₇ above,

whilst while removing the formed acid group(s) of formula (IV), and (V) and (VI).

R₇ Z(O)OH (IV)

R₉ Z(O)OH (V).

R₈ Z(O)OH (VI).

from the system, wherein Z in formula (I), (II), (III), (IV), (V), and (VI) is independently C, POH, P or S-O||.||

with a proviso that R₁, R₂, R₄ and R₅ in formula (III) is -O-Z(O)-R₈ when the equivalent group in formula (I) is -O-Z(O)-L-, wherein R₈ has the same definition as R₇.

2. (Original) A process according to claim 1, wherein y is 2 to 1000.
3. (Previously Presented) A process according to claim 1, wherein R₄ and R₅ each independently represent alkyl, an alkoxy, an aryl, an hydroxyl group or -L'-(SiR₁R₂L')_n-SiR₁R₂- group, wherein L', R₁, R₂, R₄ and R₅ are as defined in claim 1.
4. (Original) A process according to claim 3, wherein n = 0-100.
5. (Original) A process according to claim 3, wherein n = 0-10.
6. (Original) A process according to claim 3, wherein n is 0 or 1.

7. (Previously Presented) A process according to claim 1, wherein R₄ and R₅ in formula (III) are each independently selected from the group consisting of an alkyl group, an hydroxyl group, an alkoxy group and an L'-(SiR₄R₅L')_n-SiR₁R₂- group, wherein L', R₁, R₂, R₄ and R₅ are as defined in claim 1.
8. (Original) A process according to claim 7 wherein R₁, R₂, R₄ and R₅ each independently represent an alkyl group, branched or linear.
9. (Previously Presented) A process according to claim 1, wherein L' represents O.
10. (Previously Presented) A process according to claim 1, wherein Z represents C, POH, P or S-O.
11. (Previously Presented) A process according to claim 1, wherein R₁, R₂, R₄, R₅ and R₈ are each independently selected from the group consisting of methyl, ethyl, propyl, isopropyl, isobutyl, n-butyl, sec-butyl, t-butyl, phenyl, and vinyl.
12. (Original) A process according to claim 11, wherein R₁, R₂, R₄ and R₅ are selected from the group consisting of methyl, ethyl, isopropyl, phenyl, and vinyl.
13. (Original) A process according to claim 11, wherein R₁, R₂, R₄, R₅ and R₈ are methyl.
14. (Previously Presented) A process according to claim 1, wherein R₆ is methyl.
15. (Previously Presented) A process according to claim 1, wherein the groups R₁ and R₂ are the same.
16. (Previously Presented) A process according to claim 1, wherein the groups R₇ and R₉ are the same.
17. (Original) A process according to claim 16, wherein R₇ and R₉ are alkyl.

18. (Original) A process according to claim 16, wherein R₇ and R₉ are methyl.
19. (Original) A process according to claim 1, wherein the polyacid of formula (II) is a polycarboxylic acid.
20. (Original) A process according to claim 19, wherein the polycarboxylic acid is a dicarboxylic acid.
21. (Currently Amended) A process according to claim 1, wherein L represents an alkyl, aryl[|,|], alkenyl, alkynyl, or aralkyl radical, or a polymer comprising 1 to 10000 carbon atoms.
22. (Previously Presented) A process according to claim 1, wherein L represents -(CH₂)_n- , and n is an integer between 1 and 10.
23. (Original) A process according to claim 20, wherein the dicarboxylic acid is selected from adipic acid, oxalic acid, succinic acid, glutaric acid, phthalic or isophthalic or terephthalic acids, di-lactic acid, and rosinous dicarboxylic acids.
24. (Original) A process according to claim 1, wherein the polyacyloxy silyl derivatives of formula (III) are selected from tetraisopropyl-1,3-diacetoxydisiloxane, tetramethyl 1,3-diacetoxydisiloxane, dimethyldiacetoxysilane, diethyldiacetoxysilane, diphenyldiacetoxysilane, vinylmethyldiacetoxysilane, methyltriacetoxysilane, ethyltriacetoxysilane, vinyltriacetoxysilane, phenyltriacetoxysilane, tetraacetoxysilane, (butanoic acid, 1,3,5-triethyl-1,3,5-tripropyl-1,5-trisiloxanediyl ester), (1,5-trisiloxanediol, 1,3,5-triethyl-1,3,5-tripropyl-, dipropionate), (2-silanaphthalen-2-ol, 1,2,3,4-tetrahydro-2-(7-hydroxy-1,1,3,3,5,5,7,7-octamethyltetrasiloxanoxy)-, diacetate), (2-silanaphthalen-2-ol, 1,2,3,4-tetrahydro-2-(5-hydroxy-1,1,3,3,5,5-hexamethyltrisiloxanoxy)-, diacetate), (2-silanaphthalen-2-ol, 1,2,3,4-tetrahydro-2-(3-hydroxy-1,1,3,3-tetramethyldisiloxanoxy)-, diacetate), (1,9-pentasiloxanediol, 1,3,5,7,9-pentamethyl-

1,3,5,7,9-pentavinyl-, diacetate), (1,7-tetrasiloxanediol, 1,3,5,7-tetraethenyl-1,3,5,7-tetramethyl-, diacetate), (1,7-tetrasiloxanediol, 1,1,3,3,5,5,7,7-octaethyl-, diacetate), (1,5-trisiloxanediol, 1,3,5-triethyl-1,3,5-trimethyl-, diacetate), (heptasiloxane, 1,1,1,13-tetraacetoxy-3,3,5,5,7,7,9,9,11,11,13-dodecamethyl), (1,5-trisiloxanediol, 1,3,5-triethyl-1,3,5-trimethyl-, diacetate), (1,5-trisiloxanediol, 1,1,3,3,5,5-hexaethyl-, dibutyrate), (1,5-trisiloxanediol, 1,1,3,3,5,5-hexaethyl-, dipropionate), (1,5-trisiloxanediol, 1,3,5-triethyl-1,3,5-tripropyl-, diacetate), (1,5-trisiloxanediol, 1,1,3,3,5,5-hexaethyl-, diaacetate), (1,1,1,7-tetrasiloxanetetrol, 3,3,5,5,7,7-hexamethyl-, triacetate), (1,5-trisiloxanediol, 1,1,3,5,5-pentamethyl-3-vinyl-, diacetate), (1-pentasiloxanol, 7-acetyl-1,1,3,3,5,5,7,7-octamethyl-, acetate; pentasiloxanol, 9-acetyl-1,1,3,3,5,5,7,7,9,9-decamethyl-, acetate), (1,9-pentasiloxanediol, decamethyl-, diacetate), (1,5-trisiloxanediol, hexamethyl-, diacetate), (1,17-nonasiloxanediol, octadecamethyl-, diacetate), (1,15-octasiloxanediol, hexadecamethyl-, diacetate), (1,7,13-heptasiloxanetriol, tridecamethyl-, triacetate), (1,1,7-tetrasiloxanetriol, 1,3,3,5,5,7,7-heptamethyl-, triacetate), (1,13-heptasiloxanediol, tetradecamethyl-, diacetate), (1,7-tetrasiloxanediol, 1,1,3,3,5,5,7,7-octamethyl-, diacetate), ditert-butyldiacetoxysilane, and ditert-butoxydiacetoxysilane.

25. (Previously Presented) A process according to claim 1, wherein the reaction is carried out in a suitable solvent.
26. (Currently Amended) A process as-claimed-in according to claim 25, wherein the solvent is selected from pentane, cyclopentane, hexane, cyclohexane, heptane, toluene, xylene, benzene, mesitylene, ethylbenzene, octane, decane, [1,1] decahydronaphthalene, diethyl ether, diisopropyl ether, diisobutyl ether, N,N-dimethylformamide, N-methylpyrrolidone, N,N-dimethylacetamide, and mixtures thereof.
27. (Currently Amended) A process according to claim 25, wherein the solvent forms a heterogeneous low boiling azeotrope with the distilled poly(silyl ester)s comprising the structural unit of the formula (1) acid product.

28. (Currently Amended) A process according to claim 1, wherein the molar ratio of the reactive groups present in the polyacyloxsilyl derivative:acid derivative to the reactive groups present in the acid is between 1:100 and 100:1.
29. (Previously Presented) A process according to claim 1, wherein the solvent, where present, is at least 10 wt% of the total reaction mix at the start of the reaction.
30. (Previously Presented) A process according to claim 1, wherein the molecular weight is in the range 1000 to 1000000 kD.
31. (Original) A process according to claim 30, wherein the molecular weight is in the range 1000 to 100000 kD.
32. (Original) A process according to claim 30, wherein the molecular weight is in the range 1000 to 10000 kD.
33. (Previously Presented) A process according to claim 1, wherein m is 2.
34. (Currently Amended) A process according to claim 1, wherein each R₄ and R₅ is hydroxyl or is independently selected from alkyl, aryl, alkoxy, aryloxy, -L'-SiR₁R₂-, -L'-
(SiR₄R₅ L')_n-SiR₁R₂-, alkenyl, alkynyl, aralkyl or and aralkyloxy radicals optionally substituted by one or more substituents independently selected from the[[.]] group consisting of alkyl, alkoxy, aralkyl, aralkyloxy, hydroxyl, aryl, aryloxy, halogen, amino and amino alkyl radicals, or R₄ or R₅ may is independently be an -O-C (O) -L- group terminating with -SiR₁R₂R₃ and/or -O-Z(O)-R₇, and wherein when R₄ or R₅ is selected as -L'-
(SiR₄R₅ L')_n-SiR₁R₂-, the R₄ and R₅ groups attached to the silicon radical in the selected group are not themselves - L'-
(SiR₄R₅ L')_n-SiR₁R₂-;

wherein each R₁ and R₂ may is independently selected from represent hydrogen, hydroxyl, alkyl, alkenyl, alkynyl, alkoxy, aryl, aryloxy, aralyl or and aralkyloxy radical

optionally substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, aralkyl, aralkyloxy, aryl, aryloxy, halogen, hydroxyl, amino and amino alkyl radicals, or R₁ or R₂ may be independently selected from be an -O-C(O)-L- group terminating with -SiR₁R₂R₃ and/or -O-Z(O)-R₇,

wherein L represents a hydrocarbyl or substituted hydrocarbyl group, wherein said substituted hydrocarbyl is substituted by one or more substituents independently selected from the group consisting of alkyl, alkoxy, aralkyl, aralkyloxy, aryl, aryloxy, hydroxyl, halogen, amino and amino alkyl radicals, or a polymer with pendant acid groups; and

L' represents O, S, or NR₆, where R₆ is defined as is R₇, or L.

35. (Previously Presented) A process according to claim 1 which includes the additional step of incorporating the polymer in a film or coating composition.
36. (Canceled)
37. (Currently Amended) A film or coating comprising a polymer [[as]] prepared or obtainable by [[a]] the process as defined-in of claim 1.
38. (Currently Amended) A poly(silyl ester) prepared or-obtainable by [[a]] the process [[as]] defined-in of claim 1.
39. (Currently Amended) A coating or film composition comprising a poly(silyl ester) [[as]] prepared or-obtainable by [[a]] the process in-aecordance-with of claim 1.
40. (Previously Presented) A poly (silyl ester) comprising the repeating group (I) as defined in claim 1, and wherein L is a polylactic acid or substituted polylactic acid residue or a rosin or substituted rosin residue of a polycarboxylic acid.

41. (Original) A coating or film composition comprising a poly(silyl ester) according to claim 40.
42. (Previously Presented) A coating or film composition according to claim 39 wherein the composition is an antifouling coating or film composition.
43. (Previously Presented) A coating or film composition according to claim 39 wherein the composition is suitable for use in medical and/or veterinary applications to provide controlled release of a bioactive substance.
44. (Currently Amended) A film or coating comprising a poly(silyl ester) [[as]] prepared or obtainable by [[a]] the process in accordance with of claim 34.
45. (Previously Presented) An implantable medical and/or veterinary device having a coating comprising a coating or film composition according to claim 39.
46. (Previously Presented) A process according to claim 1, wherein in the definitions of R₁, R₂, R₃ or R₅ the amino radical is a tertiary amino radical.
47. (Previously Presented) A process according to claim 10, wherein Z represents C.
48. (Previously Presented) A process according to claim 22, wherein L represents -(CH₂)_n- , and n is an integer between 2 and 8.
49. (Previously Presented) A process according to claim 22, wherein L represents -(CH₂)_n- , and n is an integer between 4 and 6.
50. (Previously Presented) A process according to claim 22, wherein L represents -(CH₂)_n- , and n is 4.

51. (Previously Presented) A coating or film composition according to claim 41 wherein the composition is suitable for use in medical and/or veterinary applications to provide controlled release of a bioactive substance.
52. (Previously Presented) An implantable medical and/or veterinary device having a coating comprising a coating or film composition according to claim 41.